

# Impact of new technologies and social networks on a secondary education theatre project

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**Abstract:** This paper describes the potential impact of social media and new technologies in secondary education. The case of study has been designed for the drama and theatre subject. A wide set of tools like social networks, blogs, internet, multimedia content, local press and other promotional tools are promoted to increase students' motivation. The experiment was developed at the high-school IES Al-Satt located in Algete in the Comunidad de Madrid. The students included in the theatre group present a low academic level, 80% of them had previously repeated at least one grade, half of them come from programs for students with learning difficulties and were at risk of social exclusion. This action is supported by higher and secondary education professors and teachers who look forward to implanting networked media technologies as new tools to improve the academic results and the degree of involvement of students. The results of the experiment have been excellent, based on satisfactory opinions obtained from a survey answered by students at the end of the course, and also revealed by the analytics taken from different social networks. This project is a pioneer in the introduction and usage of new technologies in secondary high-schools in Spain.

**Keywords:** Social Media, Social Networks, Audiovisual Content, Secondary Education, Analytics

## 1 INTRODUCTION

Networked media technologies have become key elements in many areas. For education projects [1], [2], audiovisual content and social networks constitute a powerful set of tools, that can be used to motivate learning and help the students to widen their knowledge, without a cost increase. Thus, networked media technology should enable a more effective use of resources, and should be used as much as possible to improve the relationship between students and teachers, and facilitate students' access to interesting material, without additional cost.

Social networks and web 2.0-based social media services (e.g., Facebook®, Twitter®, YouTube®, etc.) have recently become very popular, especially among young people [3]. One of the main reasons is, because in social networking sites users can participate intensively in activities and services sharing content and opinions, debating and create different groups depending on their needs and interests. The use of ICT as a learning methodology needs to be firmly incorporated

into the classroom, in order to improve the experience of students and teachers alike..

A sense of community is a very important factor in raising motivation in a drama and theatre project. Feelings of membership, belonging to the groups and sharing emotional connection are basic features for motivation [4], as well as the essence of social networks aims. In [5] the usage of social networks is constructively considered in the learning process. Facebook allows members to participate, both inside and outside of the classroom, and to keep connected outside the classroom.

According to the Nielsen "Social Media Report" [6], the usage of social networks among young people is continuously increasing. The proliferation of smartphones and tablets has facilitated access to social media, complementing the access through PCs or laptops, which remain only slightly ahead in terms of medium of connectivity to social media. The trend of utilizing Social Network Sites for education is widely used as a tool for sharing collaboration, posting comments, which leads to the development of a new interactive teaching and learning platform [7]. Among social networks, Facebook is the most used, followed by Twitter and blogs, as reflected by the final analytics. These three systems formed the core of media usage in the experiment, apart from a website and the diffusion of video and audio through the platforms YouTube and Vimeo.

There have been similar experiences in higher and primary education, but this is a pioneer project in public secondary school in Spain. Students from secondary school are aged from twelve up to eighteen years old, which is commonly the age when they start to strongly interact with new technologies, begin to have their own mobiles, and open their eyes to the possibilities of internet and communications in respect to their education.

A variety of experiences have been developed in higher education for different purposes. In [8], Almadhoun proposes social networks for promotional activities in higher education. E-learning and on-line access to materials, in addition to the materials developed in the classroom, are the basis of some research. In many professions, social networks play an important role in different fields, such as civil engineering education [9] or [10], which employs YouTube videos as an important tool for teaching. Additionally, other experiments for social network integration in education can be found in [11], [12], [13], [14] and [15].

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2013 NEM Summit Proceedings | October 28-30, 2013 | Nantes, France

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There are several studies in which the impact of ICT's capabilities on children and young people is analysed as well, such as [16] and [17]. The first one concludes that the younger group's interaction with technology is different from that of the adult population. According to the second, social media in schools contributes to the organization of big projects or activities, transmitting news and information, and can also be helpful to orient students toward their future career.

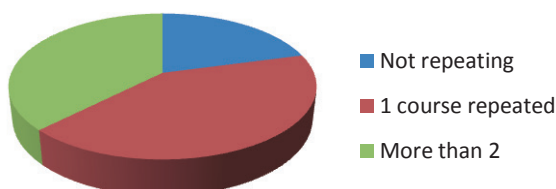
Following, after presenting an introduction and the state of the art in Section 1, we will present an overview of the work environment in Section 2, defining the conditions and main objectives of the project. In Section 3, the work that has been developed is presented, describing the set of tools that has been used for the project. Finally, Section 4 includes the results of the final survey answered by students at the end of the course, while their conclusions are drawn in Section 5.

## 2 ENVIRONMENT

This paper is the result of joining the efforts from university and secondary school, to introduce new networked media technologies in classrooms. For this purpose, the elective subject of drama and theatre from the official educational program has been selected in public secondary high-school I. E. S. Al-Satt, located in Madrid region.

The group was composed of 27 students, girls and boys aged between 14 and 18 years studying 3<sup>rd</sup> course of Secondary Obligatory Education (E.S.O), who had previously selected the optative subject of drama and theatre among other optional subjects offered.

The students included in the theatre group present a low academic level. Analysing their profiles, an 80% of them had previously repeated at least one grade (Figure 1). In Spain, when a student presents low academic achievement during a given school year, they must repeat the year to improve the results obtained in the present course.



**Figure 1. Students' academic profile in number of years repeated**

Also, half of them come from "diversification" programs, which is an educative adaptation for students with learning difficulties and at risk of social exclusion.

All parents or legal tutors of the students signed a consent form at the beginning of the course to allow their children to be photographed or filmed during the project, and the material obtained to be published on the internet.

The project extended from September 2012 until June 2013. In this period, students executed six different performances in front of an audience; the last of them took place on May, the 15<sup>th</sup>.

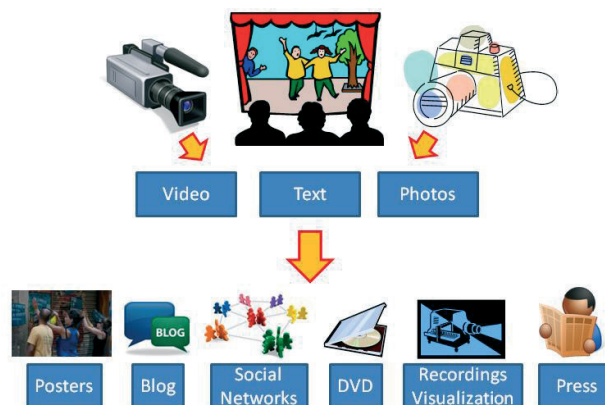
The theatrical production was called "Child Soldier", and was composed of different scenes based on methodology of *avant-garde* and community theatre. This method aims to distribute the spotlight among every individual actor/student. Similar examples of this work methodology are described in [18].

Attracted by the original material generated for this project, "Child Soldier" was selected by La Caixa Foundation for its funded "Caixa Escena" Encuentros, which is one of the most important theatre contests in secondary school.

## 3 IMPLEMENTATION

The main objective of introducing media content and promoting interaction using social networks to improve the relationship between each one of the students and the scene, motivating them to make the best effort and obtain the best result possible on stage. The initial idea was to use already-established social networks (Facebook or Twitter), instead of new platforms, such as Moodle, whose access by students would be less frequent compared to the networks that they normally use.

The evolution of the project was progressive. In the first three months, rehearsals of the first scenes developed were photographed and the material was included in social networks. The best of these photographs were used to produce promotional posters for the project. These posters were used to create a visible image of the theatre company and to raise both the students' and the school community's enthusiasm regarding the project.



**Figure 2. Working schema**

The schema of the project appears in Figure 2. The main purpose was to generate multimedia material in the classroom and on stage to distribute it through different mediums, and to create a brand image of the theatre company.

Three mediums of material were used to document the project: text, video and photos. All these mediums have been mixed to present interesting products to be used for different applications. Photographs were employed for posters and informative papers, which were posted on the walls of the institute to be seen by other students. Also photographs were distributed through social networks and the blog. The content must be attractive enough to increase participants' interest in the networks.

Video recordings were used for visualization in the classroom and a DVD authoring. The students' ability to see themselves on screen was a chance to correct their errors, learn from them, and be able to see what a spectator sees. Video and multimedia were also very innovative in high-schools, a main factor in the learning process.

Local press media played an important role in maximizing project's reach and improving students' motivation.

### 3.1 Social Networks

Social network profiles played a main role from the beginning. Profiles on Facebook®, Twitter®, YouTube® and Vimeo® were created for interaction with students, content sharing and improving the communication and relationship between teacher and student.

Following the studies of [5], Facebook was selected as the first tool in the experiment. The profile was private and limited to the students included in the theatre group and contributors to the project development.

Twitter® is the fastest growing Web 2.0 technology when compared to other micro-blogging platforms [19] and was discovered to be the most popular application amongst the members of the group, as the analytics revealed later. Then, alternative usage of both platforms was performed, in order to motivate students, when posting photos, text relative to the performance and other useful information. Students could interact with this content, posting comments, saying "I like it" or sharing them with other users.

Finally, the video sharing networks, YouTube and Vimeo [10], were presented as the most powerful tools. Videos from rehearsals and performances were uploaded to these two platforms, but also presentation trailers and edited video used as backdrops on stage. Students had the chance to see themselves on the internet, analyse their performances, and be able to improve their features, after watching the content.

### 3.2 Blog

As the social network Facebook had private use, and was limited to the members, another public platform was necessary for promotional and diffusion purposes. A blog developed in Wordpress platform was created to upload general information about next performances, news from different press media or different announcements.

### 3.3 DVD Authoring

The first performance - 20<sup>th</sup> December 2012 - was photographed and filmed during early rehearsals and in front of an audience. Different cameras were used for this purpose, a reflex professional camera for capturing photographs, and high-definition videocameras (with resolution 1280x720) were used from different points of view, including close up and full shots.

All material was classified and ordered, and was used for creating a DVD with the whole performance, which was distributed to the students as learning material. This

constitutes an innovative tool in the learning process, which was considered as the text book of the subject.

The content was edited with a professional edition software tool (Adobe Premiere) to obtain the best result, employing different viewing angles to offer a more impressive viewing. The DVD authoring was developed with another software tool (Adobe Encoder).

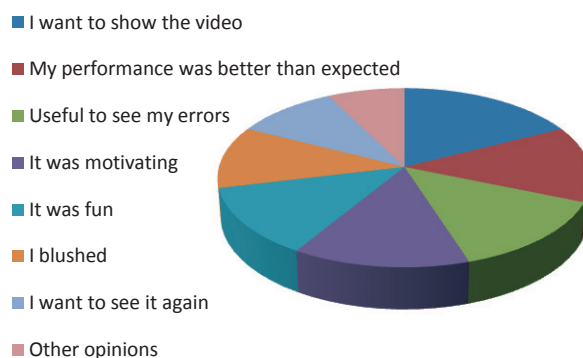
Also, the DVD included subtitles in Spanish and English languages in order to ease the memorization of the script. This material received a very good reception among students.

The DVD was used as a promotional tool among other secondary high-schools, for teachers and organization managers in Caixa Escena Encounters, with good reception. Through this DVD, other schools' teachers received an invitation to visit the project's social networks.

### 3.4 Audiovisual Content Viewing

Before distributing the DVD, the first viewing of media recordings was in the classroom. The complete edition of the performance was projected in the first class after the Christmas holidays, and the students' reactions were analysed.

The impact on students was strong and, as revealed in the final survey, crucial in their implication with the project and posterior development. The motivational factor of technology usage was reaffirmed by the fact that all students were moved by seeing the recording of themselves acting on stage.



**Figure 3. Most-repeated opinions after watching themselves on screen**

Among the most common comments and opinions collected after the video viewing, students wanted to show them to relatives or friends, and they judged their own performance as being better than they had expected. Also, video was considered a useful tool in improving their performances. In most cases, students found it motivating or fun to recognize their recurring errors. Only a low percentage admitted to having blushed after watching themselves on screen.

### 3.5 Backdrops

One of the most innovative proposals for the theatre project is the usage of video projections used as backdrops for theatrical purposes. Backdrops substitute the typical stage sets, creating a futuristic effect that fill the stage with light and shocking images.





**Figure 4. Samples of backdrops usage**

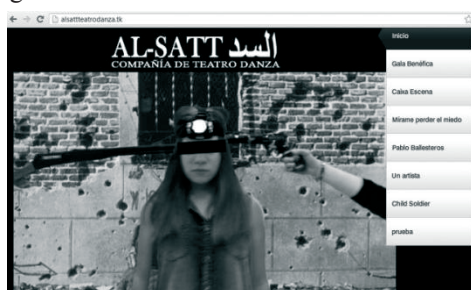
Backdrops were used to complete the stage, but also some videos were edited and projected over the screen with a meaning, not only for artistic purposes. For example, there were cases of “bullying” in the high-school, and one of the videos projected denounced against this type of behaviour. This video received a good reception among the audience and students, as the final survey revealed.

### 3.6 Other promotional tools: posters, website, mailing and local press

But social networks were not the only technology used with motivational purposes in the project. The posters created through photographs captured in rehearsal and performances were important too. The photographs were modified with tools, such as Adobe Photoshop, to offer a more professional result, searching for shocking images and icons, to leave no one indifferent.

The project had an e-mailing address to be used for communication among the members of the group, and also for inquiries from outsiders.

Also, a website was created, with the interface that can be seen in Figure 5.



**Figure 5. Website Interface**

Finally, local press media, such as “La voz de Algete” or “Crónica Norte” used the material for more extensive promotional ways in their paper edition and also online. Both published the news of the group, photos and information, which students were able to share, motivating them to continue with their effort and helping them to improve. Also, national newspapers Europa Press and La Vanguardia, mentioned the “Caixa Escena” Encounters, highlighting the performance of I. E. S. Al-Satt.

## 4 RESULTS

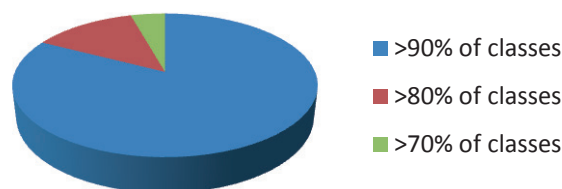
The project results are collected through different channels. First of all, subjective reactions and reception of the audience and students offered a general qualitative impression. In addition quantitative and measurable data was collected,

coming from the internet analytics about the media content consumption and on the heels of a survey conducted at the end of course, revealing interesting information about the impact of the project.

### 4.1 General Impressions

An improvement in students’ behaviour was detected, which is reflected by a decrease in the number of disciplinary reports among students involved in the project.

The degree of school absenteeism has decreased in theatre class compared to the previous year, computing a percentage of attendance higher than 90% for more than 80% of students, which is a very high level in secondary school, especially compared to the same subject in previous year. The other students presented a percentage of attendance not lower than 70%, most of the cases with not-justified absence, which is another indication of students’ difficult profile.

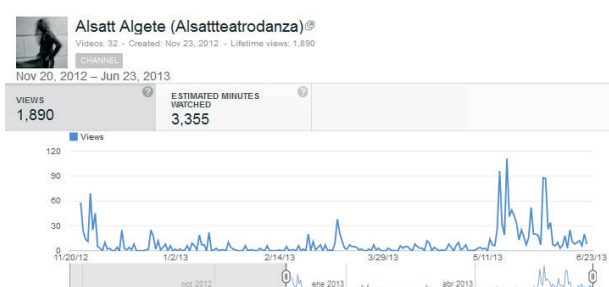


**Figure 6. Percentage of students' class attendance**

On the other hand, it must be mentioned that their academic performance did not experience an improvement, except in theatre class, in which their effort was rewarded with good grades.

### 4.2 Social Networks Analytics

Analytics from YouTube reveals a growing interest in the evolution of the project. The statistics reveal more than 1800 views of an amount of thirty different videos, and more than 3300 estimated minutes watched, from November 2012 to June 2013.



**Figure 7. Global analytics from YouTube**

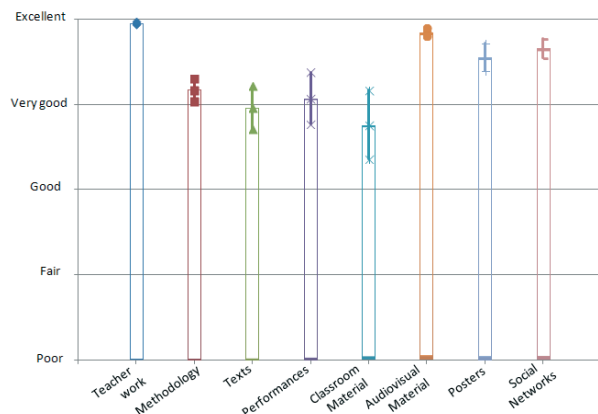
The evolution of interest in other networks, such as Twitter or the blog, also present significant trends, similar to Figure 7. Additionally, videos uploaded to the Vimeo profile must be taken into account, making a total of more than 2000 views in videos from the theatre company.

### 4.3 Final Survey

The results from the final survey are collected in this section. They were asked about different aspects of the experience, the

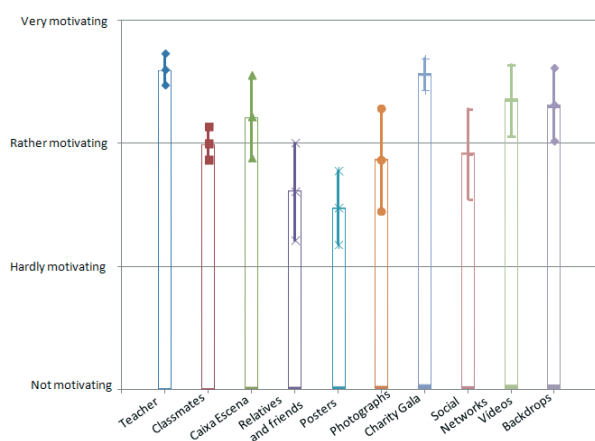
quality of material, motivational factors, social networks, performances, and finally they had some space for expressing free opinions.

Firstly, they were asked to evaluate the quality of different aspects from the project. Results revealed the high quality of the project, especially in reference to the teacher's work on the project, but also to the quality of social networks, methodology and graphic material (Figure 8).



**Figure 8. Students' subjective assessment about different aspects of the project**

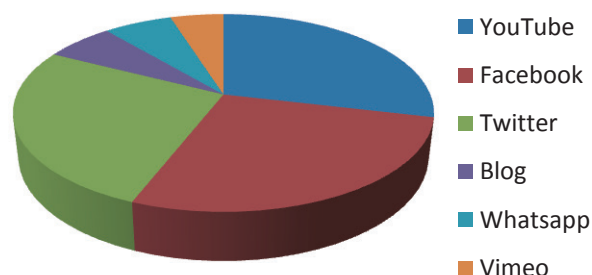
Figure 9 shows the most motivational factors from the project. According to the students, the teacher is the most motivating factor. The videos, backdrops and, of course, the performances (Caixa Escena and Charity Gala), were also highly rated. Then, content in social networks was also highlighted, because it offers the chance to interact with other students, improving their communication. Posters and photographs were less considered in comparison with other factors, but it is true that students received these positively.



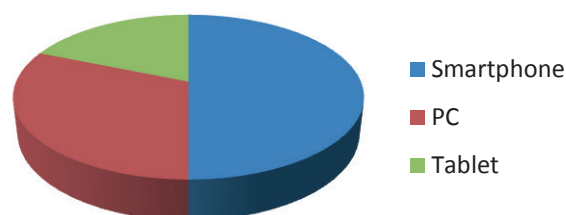
**Figure 9. Motivational factors**

Among the most-used social networks, we find that students prefer the networks they commonly use in their normal environment. YouTube, Facebook and Twitter usage is more frequent than other specific sites, as happens with the blog (Figure 10). Most of the students claimed to connect to these networks daily or weekly, searching for theater content and photos. The most commonly reported method of connection

was through smartphones, in first place, and PC's as the second option, while tablets are less frequent for their age (Figure 11).

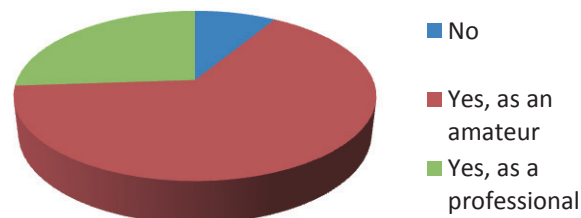


**Figure 10. Most-used social networks**



**Figure 11. Devices used for social network access**

Finally, as an indicator of the student's enthusiasm in theatre following the project, we asked the question: "Would you like to dedicate time to theatre in the future?". Most of them answered "Yes, as an amateur" or "Yes, as a professional", as seen in Figure 12. Also, in free opinions section, students congratulate teachers for their effort and satisfactory results, and they mentioned the great fellowship created among them.



**Figure 12. Opinions about future dedication to theatre**

## CONCLUSIONS

The project could be exportable to other educational centers. Not only for similar drama and theatre experiences, but even for other subjects, in which technology and established social networks could represent a key factor for improving their motivation.

The usage of social networks that they normally use is very important, instead of using a specifically-created platform. As seen in analytics, YouTube, Facebook and Twitter have better reception than the blog, because the information is in their environment and they do not need to make the effort of accessing a new platform or website. Communication has improved between teacher and student without any cost, and photographs and graphical content are accessible a short time

after being produced or generated. Social networks transform a local project in something global.

Audiovisual and graphical content are profitable in the learning process. Students are able to improve after watching their performance and share their experience with relatives and friends, as revealed in the survey, which is also motivating. Posters, photographs and news on press, maximize the project's scope and make them feel satisfied, which will influence their work effort. If they find the material created for them as professional as possible, they will take it seriously. It will be their responsibility.

The youth are subject to multiple stimuli nowadays, and they usually find traditional education system too static. The insertion of new technologies and social networks could make them find this process more dynamic and motivational, especially when they are students with learning difficulties. For this purpose additional effort is needed for taking up the educational approach, including time for preparing the professional material, dissemination and setting up the entire digital environment.

For future work, it would be interesting that the experience would be applied to different high-schools to compare the impact over students in different ages and origins in order to analyze their behavior through social networks. The project must expand the acquired knowledge to other subjects, not only theatre subject, for example, art, music or sciences.

Nevertheless, we must clarify that social networks and new technologies played an important role in the project, as demonstrated with analytics exposed and student's opinions, but it is not the only factor for project success. The work methodology, the motivation of group work, the interest in the content of the performance, and especially the degree of involvement of the teacher were also important. It would be possible to replicate the model, but it requires a full time involvement of the teacher or teachers, who needs to have knowledge about internet and social networks, being also a creative and artistic person.

## Acknowledgement

This paper is based on joint work from Universidad Politécnica de Madrid and I. E. S. Al-Satt with the aim of introducing new technologies in a secondary education institute, performed in the framework of project TEC2012-38402-C04-01 HORFI, which is partially funded by the Spanish Ministry of Science and Innovation.

The authors would like to acknowledge La Caixa Foundation for their support in Caixa Escena Encounters. Also, we thank the I. E. S. Al-Satt direction and teacher Silvia Eva Agosto, for their support and collaboration in the experimental project. Also, we acknowledge the members of local press "Crónica Norte" and "La Voz de Algete" for the diffusion of media contents, and the City Hall of Algete. And last but not least, thanks to all the students implied in the theatre project, whose effort made it possible.

For further information about the project on social networks. Twitter: @AlSattteatro, YouTube Channel: Alsattteatrodanza, Facebook: alsatt.teatrodanza, blog: alsattalgete.wordpress.com, email: alsattteatrodanza@gmail.com, website: www.alsattteatrodanza.tk

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